

DOCUMENT RESUME

ED 290 777

TM 011 017

AUTHOR Choca, James P.; And Others
 TITLE A PTSD Scale for the MCMI.
 SPONS AGENCY Veterans Administration, Washington, D.C.
 PUB DATE Aug 87
 NOTE 11p.; Paper presented at the Annual Convention of the American Psychological Association (95th, New York, NY, August 28-September 1, 1987).
 PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Diagnostic Tests; *Emotional Disturbances; Measures (Individuals); Medical Evaluation; Military Personnel; Psychological Evaluation; Psychological Testing; *Psychopathology; *Psychosomatic Disorders; Test Construction; Testing; *Veterans
 IDENTIFIERS *Millon Clinical Multiaxial Inventory; *Posttraumatic Stress Disorder; Vietnam Veterans

ABSTRACT

A post-traumatic stress disorder (PTSD) scale for the Millon Clinical Multiaxial Inventory (MCMI) was developed using an outpatient sample consisting of 45 clients meeting criteria for the PTSD syndrome in accordance with the Diagnostic and Statistical Manual (DSM-III), and an equal number of matched controls. The scale was derived empirically by looking at each MCMI item and determining if there was any difference in the way the individuals from the two groups responded to the particular item. The method led to 17 items that diagnosed PTSD subjects in the derivation sample with accuracy. The scale was then tested against a second cross-validating sample. The latter sample consisted of 43 patients admitted into a PTSD inpatient unit for treatment; the control group used a matched sample of psychiatric inpatients without PTSD. Although the results were significant, the mean and standard deviations of the two cross-validating groups were such that it may be difficult to use the scale clinically. The possibility that a better scale could be developed choosing items on the basis of face validity was explored. (Author/SLD)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

A PTSD SCALE FOR THE MCMI

James P. Choca, Luke A. Shanley, Charles A. Peterson and Joan Hong

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

James Choca

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

PRESENTATION AT THE CONVENTION OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION
NEW YORK, NEW YORK, AUGUST, 1987.

Veterans Administration Lakeside Medical Center
Northwestern University Medical Center

This research was supported by the Veterans Administration.
The authors are very grateful to Leonard Porter, James Mitchell,
Manuel Gonzales, John Dalton and Orville Lips for their help in
collecting the data used in the study.

ABSTRACT

A PTSD Scale for the MCMI was developed using an outpatient sample consisting of 45 clients meeting criteria for the PTSD syndrome in accordance to the DSM-III, and an equal number of matched controls. The scale was derived empirically by looking at each of the MCMI items and determining if there was any difference in the way the individuals from the two groups responded to the particular item. The method led to seventeen items which diagnosed the PTSD subjects in the derivation sample with accuracy. The scale was then tested against a second, cross-validating sample. The latter consisted of 43 patients admitted into a PTSD inpatient unit for treatment; the control group used was a matched sample of psychiatric inpatients without PTSD. Although the results were significant, the authors note that the mean and standard deviations of the two cross-validating groups were such that it may be difficult to use the scale clinically. The possibility that a better scale could be developed choosing items on the basis of face validity was entertained.

A PTSD SCALE FOR THE MCMI

James Choca, Luke Shanley, Charles Peterson and Joan Hong

The emergence of the post-traumatic stress disorder in the official psychiatric nomenclature of the Diagnostic and Statistical Manual or DSM-III (American Psychiatric Association, 1980) has led to interest in diagnosing the disorder through one of the objective psychological inventories. Since all of the popular psychological inventories pre-date the emergence of the diagnostic category, none of these established tools has a PTSD scale. The MMPI has been the recipient of a certain amount of attention (e.g., Burke and Mayer, 1984; Cannon, 1986; Fairbank, McCaffrey and Keane, 1985). The Millon Clinical Multiaxial Inventory or MCMI (Millon, 1981) has also been used in several investigations.

A study by Robert, Ryan, McEntyre, McFarland, Lips and Rosenberg (1985), for instance, compared the profile of 25 veterans diagnosed as suffering from PTSD with a matched group of psychiatric patients using the MCMI scales. They found that the PTSD patients had significant elevations in 9 of the 20 MCMI scales. Consistent with these findings, Hyer and Boudewyns (1987) have characterized the PTSD veteran as one who is prone to obtain elevations on the Passive-Aggressive and Avoidant Scales of the MCMI, the so-called 8-2 profile. This cluster has been described as having a tendency to "react to stress on the emotional level through demodulated, labile...and intense outwardly expressive affect" (Antoni, Tischer, Levine, Green and

Millon, 1985, p. 396).

By and large, unfortunately, these characterizations are not specific enough to be of clinical use. For instance, the 8-2 personality code of the MCMI is of extremely common occurrence, especially among people who are emotionally disturbed. Although the knowledge that a patient has this profile elevation is useful, the information can not be very instrumental in making the determination that the patient suffers from PTSD.

The present paper describes an attempt to derive empirically an MCMI scale that would measure the PTSD syndrome. It was felt that, if such scale was possible with the items that were already included in the MCMI, having the scale would be of clinical utility since a high score could then be interpreted as an indication that the syndrome was present.

METHOD

Following a method described elsewhere (Wiggins, 1973, pp. 385-394; Hase and Goldberg, 1967), empirical keying was used to derive a PTSD scale on the MCMI. The test was administered to veterans receiving outpatient services at several Viet Nam veterans outreach centers. Also obtained was a determination made by the staff member following the client as to whether the individual met each of the criteria given in the DSM-III for the posttraumatic stress disorder. Using the latter information, the group was divided into the PTSD group (n=45) and a control group of similar veterans who did not suffer from PTSD. The 45 clients for the control group were selected from a larger group of

clients from the same vet centers. The control subjects were selected on the basis of the PTSD criteria as well, but in this case the attempt was made to take those subjects who met the least number of PTSD criterion.

The number of individual answering True or False for each of the 175 items of the inventory was then tabulated for each of the two groups. Items where the proportion of True or False answers were about the same for the two groups were seen as useless in the determination of PTSD and were rejected. On the other hand, items that showed markedly different proportions when the two groups were compared were seen as possibly useful in the diagnostic differentiation between the groups. The derivation sample was further used in order to test the effectiveness of several different sets of items including sets having a greater or lesser number of items. Another scheme tried was that of weighing the items in accordance to how powerful they had been in differentiating between the two groups and the derivation sample.

After choosing the best possible scale in order to differentiate PTSD patients from the non-PTSD individuals in the derivation sample, another data set was obtained from a facility that has a PTSD unit where individuals suffering from that syndrome are hospitalized. The control group for this cross-validation sample were patients from a general psychiatric ward who had also taken the MCMI and who were matched for age with the PTSD group. The cross-validating sample consisted of 43 subjects in each of the two groups.

RESULTS

The method described above led to the establishment of a PTSD scale consisting of seventeen items. Table 1 shows the seventeen items that were seen as optimally differentiating the two groups in the derivation sample. This group of items discriminated between the two groups more significantly ($t=5.95$, $p<.0001$) than any other set consisting of more or less items. It was also found that the simple counting of the items was a more powerful discriminant between the two groups than a system for weighing some of the items more than others in arriving at the scale count.

When this seventeen-item scale was used in the cross-validation sample, it also led to significant results ($t=2.12$, $p<.05$). In spite of the significance, the overlap between the distribution of scores on the PTSD group and the psychiatric group was extensive. The mean for the PTSD cross-validating sample on the scale was 9.44 with a standard deviation of 2.34 while the mean for the psychiatric group was 8.24 with the standard deviation of 2.88.

DISCUSSION

The means obtained with the cross-validating samples were close enough that, in spite of the statistical significance of the results, the PTSD Scale presently derived may have limited clinical utility. This is because, given the standard deviations obtained on the two groups, the means are too close to allow

reasonable discrimination on the basis of the scale's score.

There may be statistical explanations for the observed lack of effectiveness of the scale. Meehl (1971), for example, discussed the problem caused by having different rates of incidence in the different samples. This is applicable to the present work since the proportion of PTSD patients at a vet center would be much lower than the proportion in a PTSD unit. Meehl and Rosen advised the use of different cutting scores with different populations. The fact that the derivation sample was made up of outpatients and the scale was cross-validated with a group of hospitalized patients may have also contributed to lowering its effectiveness.

It is possible that a theoretical or face validity approach to developing a PTSD Scale for the MCMI could prove more effective than the empirical approach used in this study. The argument between these two approaches has been well covered in the literature (Hase and Goldberg, 1967; Jackson, 1971; Meehl, 1945). The theoretical approach would represent the only logical additional method of developing a PTSD Scale for the MCMI. If that were to fail, the implication would seem to be that the MCMI does not have the items that would be necessary to effectively discriminate between clients suffering from PTSD and clients suffering from other psychiatric syndromes.

REFERENCES

- Antoni, M., Tischer, P., Levine, J., Green, C. and Millon, T.
(1985). Refining personality assessment by combining MCMI high point profiles and MMPI codes, part I: MMPI code 28/82.

Journal of Personality Assessment, 49, 392-398.

American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author.

Burke, H.R. and Mayer, S. (1984). The MMPI and the post-traumatic stress syndrome in Viet Nam veterans. Journal of Clinical Psychology, 41, 152-156.

Cannon, D.S., Bell, W.E., Andrews, R.H., and Finkelstein, A.S. (1986). Cross validation of the PTSD MMPI measures. Paper submitted for publication.

Fairbank, J.A., McCaffrey, R.J. and Keane, T.M. (1985). Psychometric detection of fabricated symptoms of posttraumatic stress disorder. American Journal of Psychiatry, 142, 501-503.

Hase, H.D. and Goldberg, L.R. (1967). The comparative validity of different strategies of deriving personality inventory scales. Psychological Bulletin, 67, 231-248.

Hyer, L. and Boudewyns, P.A. (1987). The 8-2 MCMI code in a PTSD typology. Center for Stress Recovery Newsletter, 4, 7-8.

Jackson, D.N. (1971). The dynamics of structured personality tests: 1971. Psychological Review, 78, 229-248.

Meehl, P.E. (1945). The dynamics of 'structured' personality tests. Journal of Clinical Psychology, 1, 296-303.

Meehl, P.E. (1971). Psychodiagnosis, selected papers. New York: W. W. Norton and Company, Inc.

Millon, T. (1983). Millon Clinical Multiaxial Inventory manual. Minneapolis, Minnesota: National Computer Systems, Inc.

Robert, J.A., Ryan, J.J., McEntyre, W.L., McFarland, R.S., Lips

O.J. and Rosenberg, S.J. (1985). MMPI characteristics of DSM-III posttraumatic stress disorder in Vietnam veterans. Journal of Personality assessment, 49, 226-230.

Wiggins, J.S. (1973). Personality and Prediction: Principles of Personality Assessment. Reading, Massachusetts: Addison-Wesley Publishing Co.

Table 1. Items included in the empirically-derived PTSD scale of the MCMI.

- 17. I have a drinking problem that I've tried unsuccessfully to end (T)
- 21. I keep my room well organized with everything in the correct place all of the time (T)
- 24. I'll make a sharp and critical remark to someone if they deserve it (T)
- 38. Under no circumstances do I ever let myself be tricked by people who say they need help (T)
- 42. I am a very agreeable and submissive person (F)
- 52. Drinking alcohol on my part has never caused any real problems in my work (F)
- 53. Lately my strength seems to be draining out of me, even in the morning (T)
- 64. If someone criticized me for making a mistake, I would quickly point out some of the person's mistakes (T)
- 68. I very often lose my ability to feel any sensations in parts of my body (T)
- 72. Lately, I can't seem to sleep, and wake up just as tired as when I went to bed (T)
- 82. I can't understand it but I seem to enjoy hurting persons I love (T)
- 84. I am ready to fight to the death before I let anybody take away my self-determination (T)
- 85. Since I was a child, I had always had to watch out for people who were trying to cheat me (T)
- 110. Looking back on my life, I know I have made others suffer as much as I have suffered (T)
- 146. Others have tried to do me in, but I have the will power to overcome them (T)
- 149. I have great respect for those in authority over me (F)
- 170. When I am with others I like to be the center of attention (F)